Helping Patients with Diabetes Quit Using Tobacco

November 2003

Guideline for Treating Tobacco Use and Dependence

Inside:

ADA Position Statement 2

PHS Clinical Practice Guidelines .. 3

Barriers to Quitting.....6

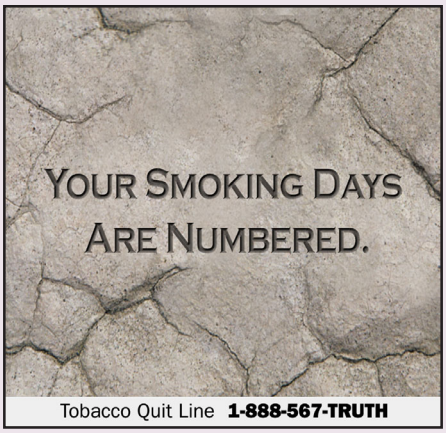
Tobacco-related Complications ... 7

Weight Gain 8

Depression 10

References 11

Position Statement of the American Diabetes Association



The 5 A's
PHS Steps to Tobacco Treatment

1. ASK the patient if he or she uses tobacco
2. ADVISE him or her to quit
3. ASSESS willingness to make a quit attempt
4. ASSIST him or her in making a quit attempt
5. ARRANGE for follow-up contacts to prevent relapse [5]

"Health care providers should emphasize smoking cessation as a priority of state-of-the-art care for all diabetic smokers."
-American Diabetes Association

Tobacco cessation intervention does not need to be time-consuming. The Public Health Service (PHS) has established an intervention, called the "5 A's," which has been proven to effectively reduce tobacco use rates while only requiring 3-5 minutes implementation time. [5] The treatment guidelines of the American Diabetes Association follow this model. The following guidelines were published by the American Diabetes Association in January, 2000.

Treatment Guidelines of the American Diabetes Association

Assessment of smoking status and history

- Systemic documentation of a history of tobacco use must be obtained from all adolescent and adult individuals with diabetes. (**PHS Step 1: Ask**)

Counseling on smoking prevention and cessation

- All health care providers should advise individuals with diabetes not to initiate smoking. This advice should be consistently repeated to prevent smoking and other tobacco use among children and adolescents with diabetes under age 21 years. (**PHS Step 2: Advise**)
- Among smokers, cessation counseling must be completed as a routine component of diabetes care. (**PHS Step 2: Advise**)
  - o Every smoker should be urged to quit in a clear, strong, and personalized manner that describes the added risks of smoking and diabetes. (**PHS Step 2: Advise**)
- Every diabetic smoker should be asked if he or she is willing to quit at this time. (**PHS Step 3: Assess**)
  - o If no, initiate a brief and motivational discussion regarding the need to stop using tobacco, the risks of continued use, and encouragement to quit as well as support when ready. (**PHS Step 3: Assess—5 R's**)
  - o If yes, assess preference for and initiate either minimal, brief, or intensive cessation counseling and offer pharmacological supplements as appropriate. (**PHS Step 4: Assist**)

Effective systems for delivery of smoking cessation

- Training of all diabetes health care providers in the Agency for Health Care Policy and Research Guidelines regarding smoking (renamed *The Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence*) should be implemented
- Follow-up procedures designed to assess and promote quitting status must be arranged for all diabetic smokers. (**PHS Step 5: Arrange**)[1]

The Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence

ASK

Ask every patient about tobacco use status at every visit. This occurs most consistently when there are systems in place, such as chart stickers or electronic prompts on electronic records.

You will need to know if the patient currently uses tobacco, never was a tobacco user, or if the patient is a former tobacco user. Former tobacco users should be offered a short relapse prevention intervention.

Strategically help pregnant women disclose their tobacco use. Research has shown a high rate of nondisclosure among tobacco-using pregnant women when they are asked the direct, yes or no question: "Do you smoke?" Experts hypothesize that pregnant women are reluctant to answer "yes" to this question because they are ashamed that they are harming their unborn child. This population is more likely to admit to using tobacco when they are asked in a multiple-choice format. In this way, pregnant women can mention something good that they are doing for their babies—reducing tobacco use—while still admitting that they haven't yet quit.

ADVISE

Advise all tobacco users to quit. Advice should be clear, strong and personalized to the individual's own situation. It is particularly motivational to patients with diabetes to mention how important it is to avoid tobacco use in order to prevent diabetes complications. You can also mention other medical conditions suffered by the patient because of tobacco use, the effects of second-hand smoke on the patient's family, and the monetary costs of purchasing tobacco.

ASSESS

Ask the patient, "Are you willing to try to quit at this time?"

What if they are not willing?

People may not desire to quit because of fear they will be unable to quit, dread of withdrawal symptoms or simply because of the pleasure of smoking or chewing. If this is the case, offer a brief motivational intervention, the **"5 R's".** Ask patients that are reluctant to quit how quitting is **relevant** to them, what they see as the **risks** of tobacco use and **rewards** of quitting, and what **roadblocks** are preventing them from quitting. Help them find solutions to these barriers. **Repeat** this motivational intervention at each visit until the patient feels ready to make a quit attempt.

Relapse Prevention Intervention

- Congratulations
- Encouragement to maintain abstinence
- Brief discussion of the benefits the patient derived from quitting
- Brief discussion of how to solve any problems encountered or anticipated threats to continued abstinence [5]

Asking Pregnant Women

Which of the following best describes your tobacco use?

a. I use tobacco regularly now, about the same as before finding out I was pregnant.
b. I use tobacco regularly now, but I've cut down since I found out I was pregnant.
c. I use tobacco every once in a while.
d. I have quit using tobacco since finding out I was pregnant.
e. I have never used tobacco. [5]

The 5 R's

RELEVANCE: Why is quitting important to their own personal situation?
RISKS: Outline the risks of continued tobacco use.
REWARDS: Outline the benefits of quitting.
ROADBLOCKS: What are the barriers preventing this person from quitting? What are some solutions to these barriers?
REPETITION: Repeat this discussion frequently, until the person is ready to quit. [5]

The Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence

How to Quit

- Set a quit date. Within 2 weeks is best.
- Tell family and friends. Social support helps!
- Review past quit attempt experiences. What worked? What didn't?
- Anticipate challenges. Symptoms such as irritability, cravings, insomnia & coughing may occur for 2-3 weeks after quitting.
- Remove tobacco products. In addition, ask family members who use tobacco not to smoke around you or leave their tobacco products where you can get them during your quit attempt.
- Avoid alcohol. About half of smokers who try to quit and relapse do so when drinking. [5]

ASSIST

If the patient is willing to make a quit attempt, assist the patient to quit in three ways:

A. Briefly discuss how to quit. Ask the patient to choose a quit date within the next two weeks.

Tell the patient to inform his/her family, friends and coworkers about the quit date and ask for their support. In particular, work out strategies for dealing with family members that also use tobacco, such as asking them not to smoke in the presence of the person who is trying to quit or inviting them to make a quit attempt as well.

Help the patient to learn from past quit attempts by identifying factors that helped or hindered those efforts.

Anticipate challenges to the present quit attempt, troubleshooting problems before they start. In particular, warn the patient about withdrawal symptoms and inform them that these symptoms will only occur for the first two to three weeks after they stop using tobacco.

Advise the patient to remove tobacco products from his/her home and car. The patient should also ask associates who use tobacco to keep their tobacco products out of the quitter's sight.

Encourage the patient to avoid alcohol during the first few weeks of the quit attempt, because about half of smokers who try to quit but relapse do so when drinking.

B. Encourage all adult patients attempting to quit to utilize effective pharmacotherapies for tobacco dependence treatment, except in special circumstances. The use of cessation medications will double or triple the patient's chance of quitting successfully by reducing nicotine withdrawal symptoms, including cravings. The Food and Drug Administration has approved two kinds of pharmacotherapies, bupropion SR and nicotine replacement therapy (NRT), as safe and effective for tobacco dependence treatment.

Bupropion SR is an antidepressant available exclusively as a prescription medication both with an indication for smoking cessation (Zyban) and an indication for depression (Wellbutrin). It is the only non-nicotine medication approved for tobacco cessation.

NRT contains nicotine, the same agent found in tobacco, but at a lower dosage and without the additional toxic substances found in tobacco. There are five kinds of NRT. Nicotine gum, lozenge and patch are available over the counter. The nicotine inhaler and nasal spray are available by prescription. NRT is most effective when used in combination with intensive counseling.

Special consideration should be given before prescribing pharmacotherapies to patients smoking fewer than 10 cigarettes a day, pregnant/breastfeeding women, patients with medical contraindications and adolescents.

The Public Health Service Clinical Practice Guideline for Treating Tobacco Use and Dependence

C. Refer the patient to an intensive counseling service. Intensive counseling may be individual or group-based, but should last 91-300 minutes and be divided into at least 4 separate sessions. [5] The Utah Tobacco Quit Line (1-888-567-TRUTH) and Utah QuitNet (www.utahquitnet.com) are free services for Utah residents that meet these requirements. The service levels offered to different groups in the population vary with funding and need. For current information on these and other cessation services in Utah, visit: www.tobaccofreeutah.org/healthcare.html

Consider using the Proactive Fax Referral System to refer clients to the Utah Tobacco Quit Line. You may refer to the Quit Line by simply giving the patient the Quit Line's toll free phone number. However, some people are uncomfortable initiating contact with the Quit Line and others lose the phone number before they have an opportunity to call. Instead, clinicians can directly refer clients using the Utah Tobacco Quit Line Fax Referral Form. After obtaining the patient's signature of consent, fax the completed referral form to the Utah Tobacco Quit Line. The Quit Line proactively calls your clients to help them quit. Then the Quit Line will fax intervention results to the referring agency, providing you with useful information for the patient's health record and facilitating follow-up with the client. You can download a Fax Referral Form personalized for your clinic at: www.tobaccofreeutah.org/healthcare.html

5 ARRANGE Follow-up

Schedule follow-up in person or on the phone. Follow-up should occur within the first week after the quit date. If the patient has quit, provide the patient with a relapse prevention intervention. If the patient has already relapsed, remind the patient that a relapse should be viewed as a learning experience. Each time the patient relapses he or she learns more about what will help and what will be harmful for the next quit attempt. Explain that relapse is consistent with the chronic nature of tobacco dependence; it is not a sign of personal failure of the tobacco user or the clinician. Help the patient to set a new quit date and revise his/her quit plan for another attempt.[5]

Learning from Unsuccessful Quit Attempts

What were the most likely triggers that caused you to slip?

- Persons
- Places
- Things
- Situations

For each trigger list two new ways you can deal with the trigger so you won't slip. Repeat process if new ways don't work.

Note: Quitting is hard! Utah data consistently show that the majority of Utah smokers want to quit but about half of them have already unsuccessfully tried to quit within the past year. The average smoker must make several quit attempts before they quit for good. So be sensitive if the attempt doesn't go well!

Resources to Help Your Clients Quit

Utah Tobacco Quit Line
1-888-567-TRUTH

- Quit Kits, including information on how to quit and items such as gum and worry stones that can be used instead of tobacco
- Referrals to cessation classes
- Intensive counseling sessions by telephone*
- NRT*

UTAH QUITNET
The TRUTH UTAHQUITNET.COM

- Quitting guide
- Peer support through message boards, email and chat rooms
- Expert advice by email
- Tools to plan quit dates or learn about your level and type of dependency
- "Nicodemon" game
- Online NRT purchase

*Eligibility for intensive counseling and NRT varies. For current eligibility requirements, see http://www.tobaccofreeutah.org/healthcare.html

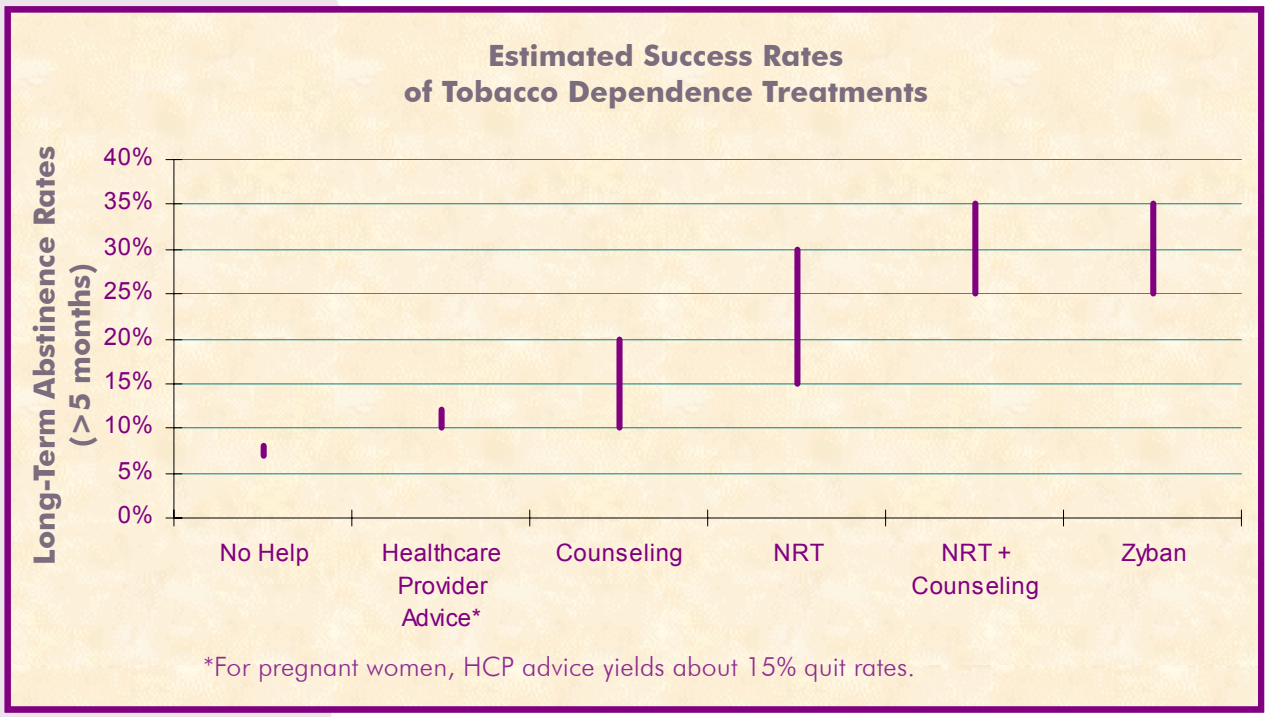
Barriers to Tobacco Cessation among Patients with Diabetes

Barriers to Tobacco Cessation

The prevalence of smoking among people with diabetes is not significantly different from that of the population at large, in spite of the greater risks of tobacco use to this group. Moreover, "the minimal information available specifically on diabetic smokers suggests that they may fare less well [at tobacco cessation] than nondiabetic smokers."[7] There could be several explanations for this phenomenon. In a study of patients' beliefs about diabetes self-management, it was found that avoiding tobacco is perceived as less important than avoiding sweets, limiting alcohol consumption and several other health behaviors. In addition to the perceived low priority of tobacco cessation to patients with diabetes, these patients may be inhibited from tobacco cessation by concerns about weight gain. Research has shown that smokers with diabetes view smoking as a form of weight control. People with diabetes also have a high prevalence of depression, which has been proven to reduce the success of tobacco cessation.[7]

Guidelines for Reducing Barriers

- Optimize successful cessation by ensuring that the patient receives intensive counseling and pharmacotherapies. (See chart)
- Tailor messages to stress the specific role of tobacco in diabetes complications.
- Help the patient plan for and limit weight gain.
- Look for and treat depression. Also, help the patient find safe, tobacco-free coping methods to deal with diabetes-related stressors.[5,6,7]



Diabetes Complications Resulting from Tobacco Use

Teaching tobacco users with diabetes about how tobacco use leads to diabetes complications is a proven motivator to quit.[15] Here are some talking points:

Tobacco raises your blood sugar level. This makes it harder to control your diabetes. Nicotine and other products in tobacco smoke make it more difficult for insulin to work properly.[4] Additionally, chewing tobacco is high in sugar.[12]

If you use tobacco, it is likely you will experience even more trouble with your sight. Diabetes can block the tiny blood vessels in the eyes. This condition is called retinopathy. Meanwhile, tobacco makes your eyes even less healthy.[4]

If you smoke or chew tobacco and have diabetes, you will have a greater chance of developing gum disease and losing your teeth.[4] The sugar and harsh chemicals in tobacco eat away at the teeth and gums.[12]

If you have diabetes, smoking will increase the risk of nerve damage in all parts of your body, causing numbness and sometimes pain. This may occur because tobacco damages the blood vessels that carry oxygen and nutrients to the nerves. Smoking slows down blood flow and blocks blood vessels in the penis, and nerve damage reduces sensation. If you are a man who uses tobacco and has diabetes, you are more likely to experience problems having an erection.[4]

You are more likely to have a heart attack or stroke and three times more likely to die of heart disease if you have diabetes and use tobacco. The nicotine in all tobacco products increases your heart rate. The carbon monoxide in tobacco smoke reduces oxygen in the blood. Tobacco causes blood vessels to constrict.[8] This means your heart has to work harder to pump blood throughout the body. Smoking makes blood cells stick together and chemicals in tobacco harm blood vessels so that fat attaches to the vessel walls even faster, causing them to clog. Uncontrolled blood glucose levels also cause blood vessels to narrow. Together, these symptoms lead to heart attack and stroke.[4]

Even in people without diabetes, smoking triples the chances of developing kidney disease. Smoking increases blood pressure and affects chemicals in the body that control kidney function.[4] Medications that successfully prevent kidney failure in most nonsmoking diabetics (ACE Inhibitors) may not help those that use tobacco.[3]

It is extremely unusual for a person with diabetes to have a leg amputated due to blocked blood vessels unless they use tobacco. Tobacco slows the circulation in the smaller blood vessels. People with diabetes are already more likely to suffer from poor circulation in their feet and legs. Tobacco use can also aggravate foot ulcers, foot infections and blood vessel disease in the legs.[4]

While quitting may not be easy, it could be the best thing you can do to prevent the complications of diabetes.

Illustrated by
Makenna Snyder, age 8

Talking to Patients About Weight Gain

Post-Cessation Weight Gain

Since weight gain is one of the main side effects of insulin therapy, diabetic patients naturally tend to be concerned about their weight.[10] Unfortunately, research suggests that patients with diabetes view smoking as a form of weight control. Within the diabetic population, concerns about weight gain following smoking cessation are particularly prevalent among women, obese smokers, and those in poor metabolic control.[7]

Their fears are warranted. The average person gains 6-10 pounds upon quitting smoking.[5] Several factors contribute to weight gain in quitters:

Cause of Weight Gain	Is this preventable?
Nicotine increases metabolism in a way that is harmful to health: it causes body tension, accelerates the heart rate, increases blood pressure and causes physical agitation.[9] When you quit smoking, your metabolism returns to normal rates and your body returns to the weight it would have been had you never smoked.[14]	**No.** However, weight gain is usually limited to 10 lbs. or less and can be delayed by using bupropion SR or NRT.[5]
Quitters might gain 3 to 5 pounds due to water retention during the first week after quitting.[14]	**No.** But it will go away after a week.[14]
Tobacco use reduces the ability to smell, so food is naturally more appealing when the tobacco user quits. Since food tastes better, some quitters to eat more than they did as tobacco users.[13]	**Yes!**
Tobacco users develop a habit of frequently putting their hands to their mouth to smoke or chew. When they give up tobacco, some people continue this habit, substituting food for tobacco.[13]	**Yes!**
Cravings for cigarettes or chew during nicotine withdrawal can be confused for hunger pangs.[13]	**Yes!**

Healthy Ways to Minimize Weight Gain

Become More Physically Active. In addition to helping control weight, exercise may help relieve the stress and depression caused by purging nicotine from the body.[14] Some studies have shown that increased physical activity actually improves quit rates in addition to reducing weight gain.[5]

<u>Gradually</u> improve eating habits. Strict dieting does not prevent weight gain in quitters and makes it harder to quit using tobacco.[5]

Replace smoking with healthy activities. Snack on fruit or sugarless gum to satisfy any sweet cravings. Replace the action of holding cigarettes with activities like doodling, working puzzles, knitting, twirling a straw, or holding a pen or pencil. Relieve tension by meditating, taking a walk, soaking in the tub, or taking deep breaths.[14]

Drink plenty of fluids, especially water and juice.[13] Drinking lots of water both cleanses the body of nicotine, decreasing the duration and severity of withdrawal symptoms, and helps people feel more full so they don't overeat.[9,2] But avoid caffeinated beverages, which may make nicotine withdrawal worse.[14]

Get enough sleep. When you feel tired, you are more likely to crave tobacco and food.[14]

Talking to Patients About Weight Gain

How to Talk to Patients about Weight Gain

Do:

1. **Reassure the patient that weight gain is minimal, usually between 6 and 10 lbs.**[5]

2. **Inform the patient that the health risks of smoking are far greater than the risks of gaining 5 to 10 pounds.**[5] A smoker would have to gain about 100 pounds after quitting to make her health risks as high as when she smoked.[14]

3. **Recommend pharmacotherapies.** Bupropion SR and nicotine replacement therapies, particularly nicotine gum, delay weight gain in quitters. Use of pharmacotherapy does not prevent weight gain after discontinuing use of the medication, but does prevent weight gain immediately after quitting when it is most likely to frustrate the quit attempt. This delay also provides the quitter with more time to prepare for changed metabolism and possibly adjust their physical activity and nutritional behaviors appropriately.

4. **Help patients recognize and avoid the preventable causes of post-cessation weight gain.** But acknowledge that some weight gain is the healthy result of returning to normal metabolism and may not be preventable.

5. **Recommend a healthy lifestyle.**[5]

Do not:

1. **Deny the likelihood of weight gain.**

2. **Minimize the significance of weight gain to the patient.**

3. **Encourage dieting.** Dieting does not prevent weight gain in quitters—but does increase the likelihood of tobacco relapse.[5]

PHS Suggestions for Talking about Weight Gain
"The great majority of smokers gain weight once they quit smoking. However, even without special attempts at dieting or exercise, weight gain is usually limited to 10 lbs."
"There is evidence that smokers will gain weight once they quit smoking, even if they do not eat more. However, there are medications that will help you quit smoking and limit or delay weight gain. I can recommend one for you."
"The amount of weight you will likely gain from quitting will be a minor health risk compared with the risks of continued smoking."
"Try to put your concerns about weight on the back burner. You are most likely to be successful if you first try to quit smoking, and then later take steps to reduce your weight. Tackle one problem at a time! After you have quit smoking successfully, we can talk about how to reduce your weight."
"I know weight is important to you, and that you don't want to gain a lot of weight. However, temporarily -- just until you are confident that you have quit smoking for good -- let's focus on strategies to get you healthy rather than on weight. Think about eating plenty of fruit and vegetables, getting regular exercise, getting enough sleep, and not eating a lot of fats. Right now, this is probably the best thing you can do for both your weight and your effort to quit smoking."
"Although you may gain some weight after quitting smoking, compare the importance of this with the added years of healthy living you will gain, your better appearance (less wrinkled skin, whiter teeth, fresher breath), and good feelings about quitting." [5]

Helping Patients Cope with Depression

Effects of Depression on Cessation

Numerous studies have demonstrated that smokers with a lifetime history of clinical depression are about half as likely to succeed in tobacco cessation as patients without depression. People with diabetes are at a greater risk for major depression compared with the general population, with a prevalence of 14% compared to 3-4% nationally. [7] In spite of this obstacle, the PHS Guidelines make the following recommendation: "Smokers with comorbid psychiatric conditions should be provided smoking cessation treatments identified as effective in this guideline." They add that "although psychiatric comorbidity places smokers at increased risk for relapse, such smokers can be helped by smoking cessation treatments". [5]

Antidepressant Cessation Pharmacotherapies

Bupropion SR is efficacious for both depression and smoking cessation. Therefore, it is an appropriate medication to use with depressed smokers trying to quit. [5] A recent study showed that the use of Zyban (bupropion SR) tripled abstinence rates among depressed patients a year after cessation treatment, while NRT did not improve abstinence rates in this population. [11] Nortriptyline is also efficacious for both depression and smoking cessation, but its side-effect profile and the fact that it has not been approved by the FDA specifically for the purpose of treating tobacco dependence make it what the Public Health Service calls "a second-line medication". Nortriptyline may be considered if bupropion SR is not an option. [5]

Behavioral Interventions

Supplementing smoking cessation treatment with cognitive behavior therapy or mood management education has been shown to increase quit rates for people with a history of major depression. [6] Refer the patient to a social worker or therapist for help.

Reference List

1. American Diabetes Association (ADA) (2000). Smoking and diabetes. *Diabetes Care 23(1),* 93-94.
2. American Lung Association (ALA) (2001). Hunger Helps: Tips for Changing your Behavior about Food. Freedom from Smoking: Module 6 Weight Control. http://www.lungusa.org/ffs/protected/handouts/handout49.doc.
3. Chuahirun, T., Khanna, A., Kimball, K. & Wesson, D.E. (2003). Cigarette smoking and increased urine albumin excretion are interrelated predictors of nephropathy progression in type 2 diabetes. *American Journal of Kidney Disorders, 41(1),* 13-21.
4. Diabetes Australia (1999). Smoking and Diabetes – What you need to know. In *Diabetes & You The essential guide.* http://www.multilingualdiabetes.org/multilingualdiabetes/HealthPros/YourBody/lungs.htm.
5. Fiore, M.C., Bailey, W.C., Cohen, S.J., et al. (2000). *Treating Tobacco Use and Dependence.* Clinical Practice Guideline. U.S. Department of Human Services, Public Health Service (PHS).
6. Fisher, E.B., Holt, D., Glasgow, R. & Green, L. (2000). *Incentives in Control and Cessation of Cigarette Smoking.* Robert Woods Johnson Foundation, Smoke Free Families Program.
7. Haire-Joshu D, Glasgow RE, Tibbs TL. (1999). Smoking and diabetes. *Diabetes Care 22(11),* 1887-1898.
8. Prairie Public (1998). [Webpage]. Preventing Complications. *About Diabetes.* Prairie Public Broadcasting, Inc. http://www.prairiepublic.org/features/healthworks/diabetes/complications.html.
9. QuitNet.com, Inc. (2003). [Webpage]. *Expert FAQ: Doesn't smoking help me stay thin?* http://utah.quitnet.com/ExpertSystem/faq_entry.jtml?%99%1Fs%13%EAz.
10. Shane-McWhorter, L. (2002). Insulin—Therapeutic Considerations. In R.E. Jones & K. Kulkarni, (eds.), Utah Diabetes Management Handbook 2nd Ed. (13.1-13.9). Salt Lake City: Buckboard Press.
11. Smith, S.S., Jorenby, D.E., Leischow, S.J., Nides, M.A., Rennard, S.I., Johnston, J.A., Jamerson, B., Fiore, M.C. & Baker, T.B. (2003). Targeting smokers at increased risk for relapse: treating women and those with a history of depression. *Nicotine and Tobacco Research, 5(1),* 99-109.
12. Tomar, S.L. & Winn, D.M. (1999). Chewing tobacco use and dental caries among U.S. men. *Journal of the American Dental Association., 130(11),* 1601-10.
13. Utah Department of Health (UDOH) (1997). Ending Nicotine Dependence (END).
14. Weight-control Information Network (WIN), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health (NIH) (not dated). [Webpage]. *You can Control your weight as you quit smoking.* http://www.pueblo.gsa.gov/cic_text/health/w8quit-smoke/#1.
15. Wray LA. (2000). *The Role of Diabetes and Education in Smoking Cessation.* Presidential poster presentation at the American Diabetes Association Annual Meeting, San Antonio, Texas, June 2000.